



CLASS 1 – FLAME SYSTEM 2

**USERS (Pages 2-3)/ INSTALLATION (Pages 4-8)
AND SERVICING INSTRUCTIONS**

**THIS CAT I_{2H} APPLIANCE IS FOR USE
ON NATURAL GAS G20 AT A SUPPLY
PRESSURE OF 20mbar IN GB and IE**

HAND THESE INSTRUCTIONS TO THE USER

USERS INSTRUCTIONS

DESCRIPTION

The Flame System 2 has a single aerated burner, the design of which produces a ribbon of flame which runs across the front of the fire bed. A single gas control combined with piezo igniter selects ignition (pilot only) and can be turned anticlockwise to select a high rate and then a reduced input at the maximum rotation. For extra safety the control is designed so that gas cannot be allowed to reach the burner until pilot ignition has been proven.

A Flame Supervision Device (FSD) is fitted. This ensures that if the pilot goes out for any reason (including being turned off), the gas flow to the burner is cut off until the full lighting procedure is repeated. The oxy-pilot or O.D.S. will cause the appliance to ‘shut off’ in the event of continued spillage occurring under hazardous or blocked flue conditions. The burner assembly is fixed to the base of the radiant box which also includes a fire back made of ceramic fibre, this forms an insulating surface to reflect heat into the fire bed, raising its temperature and increasing the amount of heat radiated into the room. A decorative trim completes the front face of the appliance.

There are various types of front and fret available for this appliance; these have perforated frets to allow air to be entrained into the fire bed to ensure clean combustion. The optional fire fronts and frets are listed with your supplier. If other Fronts and Frets are to be used they must have a minimum open area in the fret of 20 square centimetres and 60 square centimetres in the Front, as shown in figure 11.

IMPORTANT NOTES

The Flame System 2 is a decorative fuel effect appliance designed and manufactured to the requirements of the British Standards Institution BS 5258 Part 12: 1990 and EN509. It is for use on Natural Gas only .

All gas appliance installations must be installed by a competent person in accordance with the current Gas Safety (Installation and Use) Regulations or the rules in force and in accordance with the attached Installation Instructions; failure to do so could lead to prosecution.

The appliance is fitted with an ODS, a spillage monitoring system which operates if the evacuation of products is interrupted (i.e. blocked or incorrect flueing). If the gas fire repeatedly ‘goes out’ it may indicate a problem and the installer or specialist should be informed before further use.

Areas of this appliance will become hot after prolonged running and it is recommended that for the protection of the very young, elderly and infirm a fireguard conforming to BS 6539 or BS 6778 be used.

Care should be taken to prevent any damage being caused to surrounding soft furnishings or decor e.g. many embossed vinyl wall coverings may become discoloured if located too close to the appliance. Clearances required for combustible shelves are shown on page 3.

This product uses fuel effect pieces, gaskets and insulation material containing Refractory Ceramic Fibre (RCF), which are man-made vitreous silicate fibres. Excessive exposure to these materials may cause temporary irritation to eyes, skin and respiratory tract, consequently, it makes sense to take care when handling these articles to ensure that the release of dust is kept to a minimum.

It is recommended that the chimney or flue should be swept annually by a competent person and the appliance checked for spillage (smoke test) and that there are no excessive deposits of soot.

The curing effect of heating the coals will cause an initial odour which, although not harmful, may require additional ventilation until the odour has disappeared. This appliance will run on Full for approximately 4.4 hours on one therm of gas.

TO LIGHT THE APPLIANCE

1. Remove the fret (controls cover), to gain access to the controls
2. Press and turn the gas control anti-clockwise, keep the control fully depressed. The igniter will operate and the pilot will light, if not repeat the operation.
3. Once a pilot-flame has been established; keep the control depressed for a further 20 seconds. Release the gas control and check that the pilot remains lit.
4. Depress the gas control slightly and turn anti-clockwise until the indicator mark is aligned with the letters HIGH. The burner will cross light from the pilot.

5. Depress the gas control slightly and turn anti-clockwise until the indicator mark is aligned with the letters LOW. The burner will now be at minimum rate.
6. To turn the appliance 'off', return the control to the 'OFF' position.
7. If for any reason the fire cuts out, return the control knob to the 'OFF' position and wait **3 minutes** before re-lighting.
8. In the event of failure of the igniter the fire may be lit by placing a lighted taper or match at the pilot position at the same time depressing the gas control in the IGN position.

REMOVAL OF DEBRIS or SOOT DEPOSIT

Debris from any source or any soot formed shall require removal. Allow the appliance to cool for two to three hours before removing all of the coals and ceramic blocks for cleaning purposes. Once all the ceramics are removed from the fire bed check that no debris is located in the burner slots. If any debris is present it may easily be removed by using a small piece of thin cardboard to ease out any foreign matter. Be sure to remove the cardboard after use. Cleaning should be carried out in a well-ventilated area or in the open air, by gently brushing with the pieces held away from your face so that you avoid inhaling the dust. We do not recommend the use of a normal domestic vacuum cleaner, which may blow dust back into the air.

SETTING UP THE COAL BED. (See the identification sheet figure 13)

Components

Coal support shelf.	10 Large Coals..
Artificial coal front.	15 Small Coals

The coal support shelf is positioned on the fibre support metalwork, ensure that the shelf sits against the two stops which are to prevent the shelf sitting on the burner outlet. Place the simulated coal front in position as shown in Fig.6, three tabs are provided to locate. The one-piece coal support shelf is constructed to allow three levels of coal support; these three levels are shown in Fig 6, the plan view of the bed.

COAL LAYOUT

First Layer. Position 3 large and 6 small coals across the gap between the front simulated coal and the lower level of the coal support shelf.

Position 4 large and 3 small coals on the middle level of the coal support shelf.

Position 3 large coals on the upper level of the coal support shelf. See figure 7.

Second Layer. Position 6 small coals to fill the gaps between the coals on the lower level and middle level of the coal support shelf. See figure 8.

To obtain the best visual appearance it may be necessary to make slight adjustments to the position of the coals.

NOTE: **Additional coals must not be used.** If any of the coals or the coal bed becomes damaged, lost or broken, genuine manufacturer's replacements must be obtained (part numbers listed in short spares list) before the appliance is used.

VENTILATION

Purpose built ventilation is not required for this appliance in GB only. For Ireland (IE) ventilation is required with a minimal cross sectional area of 100 sq. cms and should be checked regularly to ensure that it is free from obstruction. It must be fitted in accordance with the rules in force.

CLEARANCE TO SHELVES

Minimum clearances to underside of a 150mm (6ins) combustible shelf from the top of the fire opening must be 228mm (9ins). Add 12.5mm (1/2in) to this clearance for every 25mm (1in) increased depth of shelf.

CLEARANCE TO SIDES

Minimum Clearance required to any combustible material to the side of the appliance must be 150mm (6in)

The list of coal part numbers that the user can replace is at the back of this document.

This appliance is intended for decorative purposes.

INSTALLATION INSTRUCTIONS

INSTALLATION REQUIREMENTS AND REGULATIONS

The appliance must be installed by a competent person in accordance with the current Gas Safety (Installation and Use) Regulations or the rules in force and in accordance with the manufacturer's instructions. Failure to do so could lead to prosecution.

The following are the relevant Codes of Practice and British Standards.

The Building Regulations issued by the Department of the Environment.

The Building Standards (Scotland)(Consolidation) Regulations issued by the Scottish Development Department.

BS 8303 1994	BS 5440 Pt1 1990 & Pt2 1989	BS 7566 Pts 1-4 1992
BS 1251 1987	BS 5871 Pt3 1991	
BS 6891 1988	BS 6461 Pt1 1984	

Important Notes

The fire place, chimney or flue must be sound and conform to the requirements of BS 8303 1994 & BS 6461 Part 1 1984.

The effective flue height must be a minimum of 3 metres and should be a 225mm x 225mm brick, stone or a lined flue with a minimum diameter of 175mm. Any permanent flue restrictions must be removed, and any variable dampers locked fully open or removed. The flue must be swept prior to installation, unless new.

Care should be taken to prevent any damage being caused to surrounding soft furnishings or decor e.g. many embossed vinyl wall coverings may become discoloured if located too close to the appliance. Clearances required for combustible shelves are shown on page 4.

A hearth must always be provided to project forward of the trim a minimum of 300mm and a minimum of 150mm either side of the fire opening. The hearth must be a minimum thickness of 12mm with a perimeter height of 50mm to deter combustible materials, carpets etc, being placed on the hearth. The area under the firebox must have a minimum non-combustible thickness of 25mm. In most installations a back panel will be required, this will need a minimum fire resistance rating of Class O (100°C).

TECHNICAL DATA

Height	560mm overall size of Box
Width	410mm overall size of Box
Depth	265mm overall size of Box
Height of Trim	605mm
Width of Trim	505mm
Overall Depth inc Front & Fret using (MACH 11)	340m
Maximum heat input (HIGH) (GROSS)	6.95 kW, 23,700 Btu/h
Minimum heat input (LOW) (GROSS)	3.6 kW, 12,300 Btu/h
Supply pressure (cold)	20 mbar +/- 1 mbar
Injector marking	Cat. 046/19/196/79M
Pilot	OP Oxy/Pilot NG 9022
Gas valve	Concentric TESA 3058/S
Gas Connection	8mm O/D Tube

CONTENTS CHECK LIST (See pages 14 & 15 for identification)

VENT BOX ASSEMBLY C/W: Burner assembly, and trim.

- 1 Simulated coal front
- Coal support shelf
- 10 Large and 15 Small Coals.
- Fitting kit
- Installation & Users Instructions.

INSTALLING THE APPLIANCE

If a fire back (chair brick) is fitted in the existing builders opening (constructed of non-combustible material) it will be necessary to remove it together with any infill or rubble. Any remedial work should be carried out including levelling the base beneath the fire. The sizes required for the opening are shown in Fig 2.

DISMANTLING THE FIRE PRIOR TO INSTALLING

To prevent any damage and to assist with the installation of the appliance both the burner and the trim should be removed. The trim is held in place by magnets. To remove the burner from the box unscrew the two screws at the base of the fascia panel and lift the assembly approximately 200mm at the front to clear the fixing flange. When refitting observe that the two feet at the rear of the assembly locate under the two lugs formed in the base of the box assembly.

GAS SUPPLY

BEFORE COMMENCING WORK, TURN OFF ANY APPLIANCES THAT ARE FED BY THE METER AND ISOLATE THE SUPPLY BY TURNING OFF AT THE METER.

The gas connection to this appliance is made with 8mm O/D rigid or semi rigid tube to a combined pressure test/restrictor elbow situated on the right-hand side of the burner as shown in Fig 1. Any pipe used under the tray must be rigid tube such as bundy, a length is supplied for the convenience of the installer. Provision is made in the rear of the box to make a concealed connection; (additional holes may be drilled as required). The installer is reminded of the requirements of BS 6891 1988 dealing with enclosed pipes. The standard requires that when a gas pipe is fed through a wall, the pipe should be enclosed in a tight sleeve to protect against failure caused by movement and shall be constructed to prevent a passage of gas either between the pipe and sleeve or sleeve and the wall. If a gas supply is required to be fed from either the left or right across the front of the appliance it should be routed as shown in Fig 2. It is only the MACH II Front & Fret that has provision for this requirement alternative Fronts & Frets will need modifying to allow access for the supply tube, see Fig 4.

FITTING THE VENT BOX.

Position the box in the centre of the opening it is secured in place with the two 10x11/4 round headed screws and plastic plugs supplied in the fitting kit using the two holes in the base of box. Replace the burner assembly in position ensuring that the rear legs locate under the tags in the base plate and secure with the two screws provided. Complete the gas connection to the burner as required and fit the trim (held in place by magnets), if the brass trim is used remove the protective plastic coating before lighting fire.

TO CHECK THE APPLIANCE SETTING PRESSURE & LEAK TEST

A Pressure Test Point at the inlet elbow enables verification of the inlet pressure of the appliance under operating conditions and can also be used to check the gas soundness of the connections to the appliance gas control. To check the joints of the burner assembly for gas soundness it will be necessary to carry out the examination prior to installing into the case. If a manometer is used care must be taken to ensure that it is not disconnected with the gas turned on and the fuel bed hot.

TO VERIFY THE INLET PRESSURE

The inlet pressure should be observed at 20mbar +/- 1mbar when the appliance is operating at its maximum rate. Any significant reduction below an inlet pressure of 20mbar will indicate a restriction in the gas supply to the appliance that should be identified and corrected. If there are any other appliances, which are relatively high rated (e.g., a central heating boiler), fed from the same gas supply branch, it is advisable to perform this observation with both appliances in operation.

LOCATION OF THE FIBRE BED (See pages 14 & 15 for identification of components)

The coal support shelf is positioned on the fibre support metalwork, ensure that the shelf sits against the two stops which are to prevent the shelf sitting on the burner outlet. Place the simulated coal front in the position shown in Fig 6, three tabs are provided to locate. The one-piece support shelf is constructed to allow three levels of coal support; these three levels are shown in Fig 6, the plan view of the bed.

COAL LAYOUT

First Layer. Position 3 large and 6 small coals across the gap between the front simulated coal and the lower level of the coal support shelf.

Position 4 large and 3 small coals on the middle level of the coal support shelf.

Position 3 large coals on the upper level of the coal support shelf. See figure 7.

Second Layer. Position 6 small coals to fill the gaps between the coals on the lower level and middle level of the coal support shelf. See figure 8.

To obtain the best visual appearance it may be necessary to make slight adjustments to the position of the coals.

NOTE: **Additional coals must not be used.** If any of the coals or the coal bed becomes damaged, lost or broken, replacements must be obtained before the appliance is used

TO LIGHT THE APPLIANCE

1. Remove the fret (controls cover), to gain access to the controls.
2. Press and turn the gas control anti-clockwise, keep the control fully depressed to purge the air from the pipework. Turn 'OFF' and repeat the operation, check that a spark occurs between the electrode and the head of the pilot. The pilot will light, if not repeat the operation.
3. Once a pilot-flame has been established; keep the control depressed for a further 20 seconds. Release the gas control and check that the pilot remains lit.
4. Depress the gas control slightly and turn anti-clockwise until the indicator mark is aligned with the letters HIGH. The burner will cross light from the pilot.
5. Depress the gas control slightly and turn anti-clockwise until the indicator mark is aligned with the letters LOW. The burner will now be at minimum rate.
6. Turn the gas control to the OFF position, wait for 3 minutes, fully depress the gas control, turn to IGN position and release the control. Attempt to ignite the pilot with an already lighted match or taper. If the pilot ignites the FSD is faulty.
7. Re-light the appliance. With the control set to the maximum rate (large flame) position, place the Fire front & fret in position and leave to heat up for 5 minutes. Check for satisfactory clearance of products by inserting a lighted smoke match into the opening in the position shown in Fig 10, i.e. 100mm below the top, and 40mm inside of the front face of the opening, all the smoke must be drawn into the flue. If spillage occurs, allow a further 10 minutes. Should spillage still occur examine the chimney for the fault and rectify the cause. The test should be repeated if an extractor fan is situated in the room, or in any connecting room, with all the doors in that room opened.

Demonstrate the lighting and extinguishing procedures to the user.

ADVISE THAT:

The curing effect of heating the coals will cause an initial odour, which although not harmful, may require additional ventilation until the odour has disappeared.

Any debris or soot is cleaned from the appliance. Advise the customer that they should read their Users Instructions before operating the fire and always follow the advice in the section headed 'Removal of Debris or Soot Deposits'.

The appliance must be serviced annually by a competent person; i.e. a CORGI registered installer in accordance with these instructions and that the appliance is checked for spillage in accordance with the method detailed in these instructions.

The appliance is fitted with an Oxy-pilot to prevent the continued operation in the event of spillage occurring. If the fire shuts 'OFF' repeatedly the appliance must be turned off and not used until an expert is consulted. The Oxy-pilot must not be adjusted or rendered inoperable and replacements must only be the manufacturers supplied part.

Complete the section in the enclosed registration leaflet. Advise that any component or part of this appliance is guaranteed against defective workmanship or faulty materials for a period of twelve months from the date of purchase.

Any such part will be replaced free of charge on receipt of the purchasers address at the cost of postage only, provided that:

- a) It is accompanied by the registration section cut out of the booklet together with the original purchase receipt, which will be returned with the replacement part.
- b) A competent person has carried out installation repairs or adjustments, such as the supplier's representative or a CORGI registered installer.

MAINTENANCE AND SERVICING

GENERAL

A. REMOVAL OF DEBRIS OR SOOT DEPOSITS;

Allow the appliance to cool for one hour before removing all the coals and coal bed components for cleaning purposes. Once all the components have been removed from the fire bed check that no debris has become lodged in the burner port. If any debris is present it may be easily removed with a thin piece of card or similar to ease out any foreign matter. To ensure that the release of fibres from these RCF articles is kept to a minimum, during installation and servicing we recommend that you use a HEPA filtered vacuum to remove any dust and soot accumulated in and around the fire before and after working on the fire. When replacing these articles we recommend that the replaced items are not broken up, but are sealed within heavy duty polythene bags, clearly labelled as RCF waste. This is not classified as "hazardous waste" and may be disposed of at a tipping site licensed for the disposal of industrial waste. Protective clothing is not required when handling these articles, but we recommend you follow the normal hygiene rules of not smoking, eating or drinking in the work area and always wash your hands before eating or drinking. Any soot deposits may be removed from either the Thermocouple or Electrode tips with a soft cloth, **do not use abrasive materials**.

B. SERVICING COMPONENTS BELOW THE BURNER ASSEMBLY

Remove trim (held in place by magnets). Remove the coals, coal support and front simulated coal. To gain access to the components below the burner assembly it has to be removed from the Vent Box by disconnecting the gas supply at the inlet elbow and unscrewing the two screws at the base of the fascia panel. Lift the assembly approximately 20mm at the front to clear the fixing flange. When refitting observe that the two feet at the rear of the assembly locate under the two lugs formed in the base of the box assembly.

i) TO CLEAN OR REPLACE THE INJECTOR: Unscrew the compression nut connecting the gas supply to the injector elbow while supporting the injector to prevent any distortion of the frame work. Unscrew and remove the gas supply tube from the gas control valve, hold the injector lock nut with a spanner and rotate the injector. Replace in the reverse order.

ii) TO REPLACE THE GAS CONTROL / FSD: Disconnect the three gas pipes and the thermocouple from the control. Pull the control knob from the spindle; undo the two screws securing the control bracket to the main assembly. The tap may now be withdrawn. Replace in the reverse order.

iii) TO REPLACE THE OXY-PILOT ASSEMBLY: including electrode and thermocouple): THE PART MUST ONLY BE THE MANUFACTURER'S SUPPLIED ITEM NO ADJUSTMENT OR ALTERATION MAY BE MADE OR THE PILOT SYSTEM OVER-RIDDEN. The two securing screws are accessed through the front of the control panel. Undo the pipe at the inlet of the pilot assembly and undo the thermocouple connection at the back of the tap. Withdraw the pilot assembly. Clean off any lint or fluff taking care to avoid damage. The individual parts cannot be changed separately as the assembly is precision built. Reassemble in reverse order. It is advisable to check joints for leaks prior to refitting the burner unit into position. the spark gap is shown in figure 12.

FIRE FRONTS & FRETS SUITABLE FOR THIS APPLIANCE.

The supplier will demonstrate recommended Front and Frets, if an alternate Front and Fret is used, it is important to maintain the equivalent ventilation to that shown.

SPARES AND SERVICE

For spares and service, apply to your local Supplier, Installer or direct to the manufacturer, stating that the appliance is a Flame System 2 quoting the Serial Number from the data badge located on the front controls panel.

Advantage should be taken of regular servicing and inspection for gas appliances to ensure their continued safe operation.

SHORT PARTS LIST

DESCRIPTION	PART No
Control Valve	0102 078 00031
Control Knob	40232
Oxy-Pilot Burner Assembly	0102 078 00061
Main Injector	0102 078 00011
Isolating Valve complete with PTP	0102 078 00041
Coal Support Shelf	0102 078 00451
Front Simulated Coal	0102 078 00271
Set of Coals	0102 092 40011

Maximum Heat Input (Gross)

6.95 kW 23700 Btu/h

Royal Cozyfires are manufactured by:

CROSSLEE plc
Aber Park Industrial Estate,
Aber Road, Flint, Flintshire. CH6 5EX
Spares Tel 01422 203963
Fax: 01422 204475
Service (GSA Ltd) 01703 516611
Customer Service 01422 200660
Fax 01422 206304

Fig 1

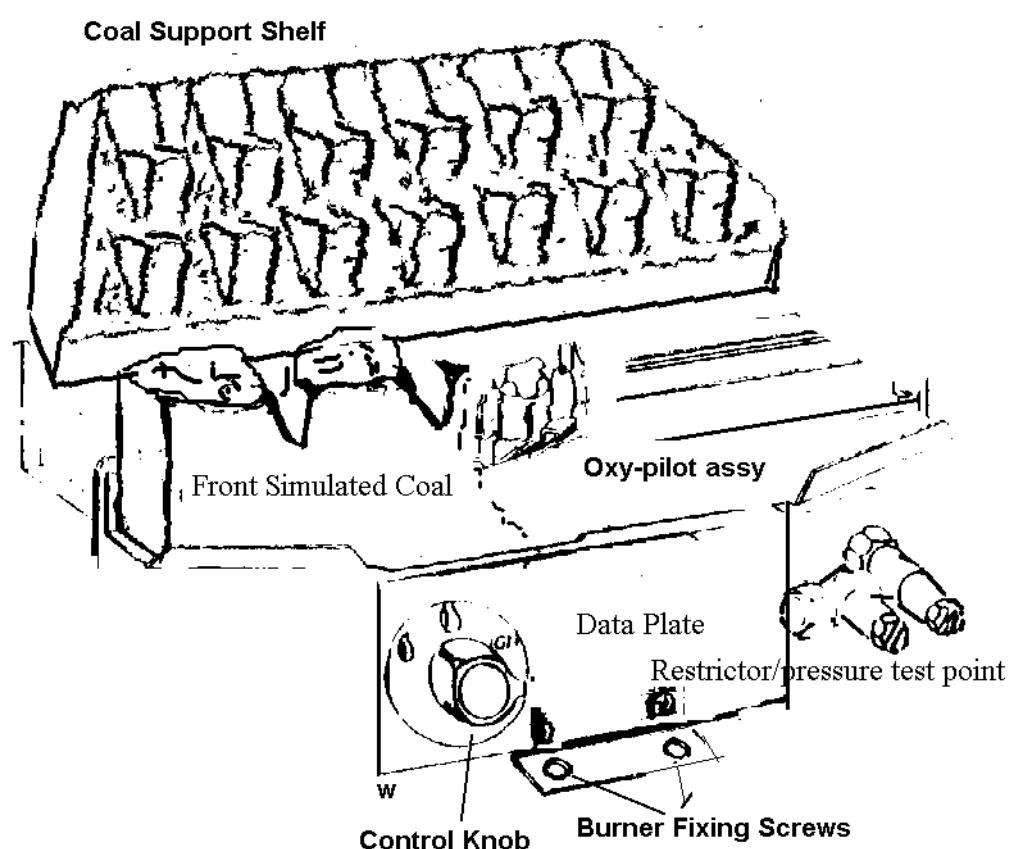
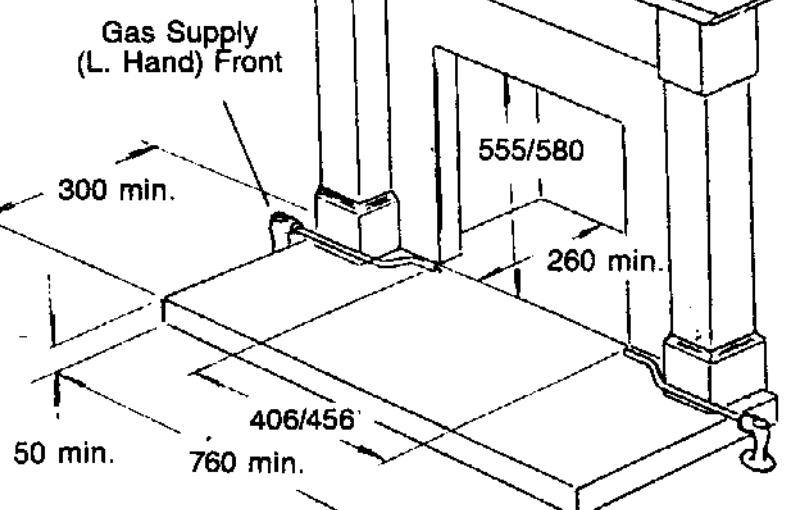


Fig 2



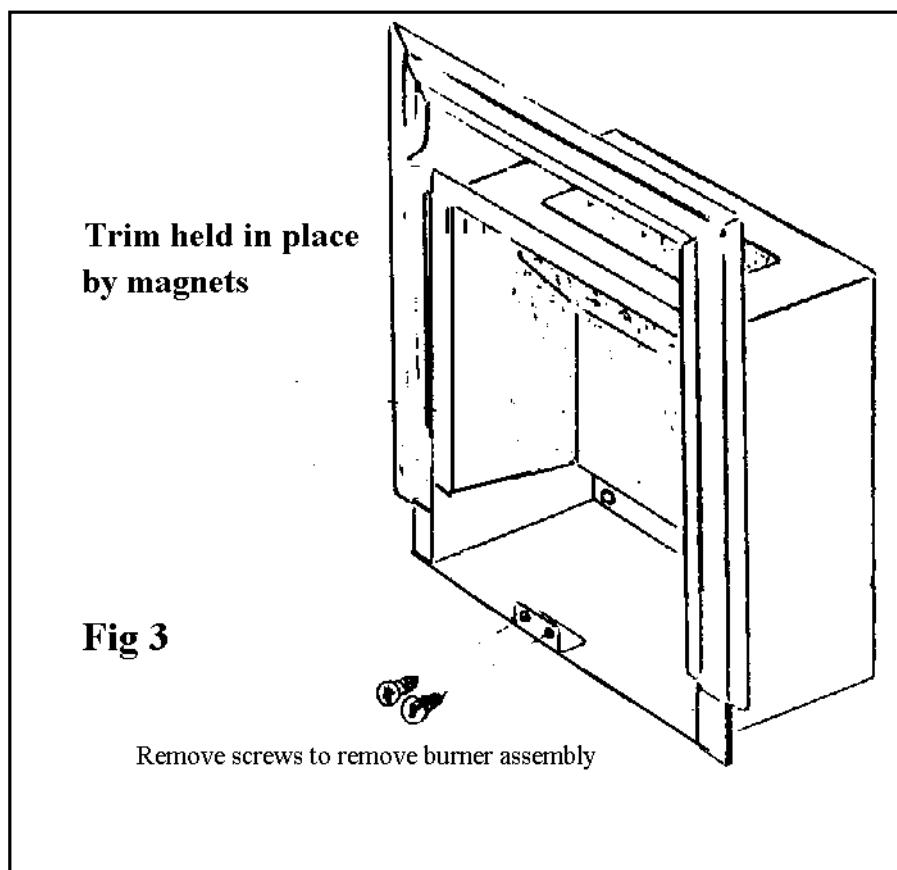


Fig 3

Remove screws to remove burner assembly

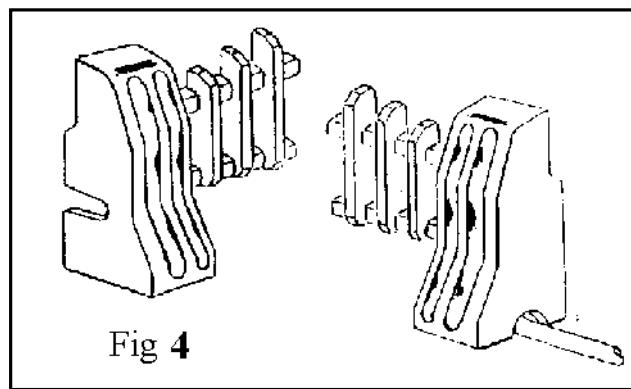


Fig 4

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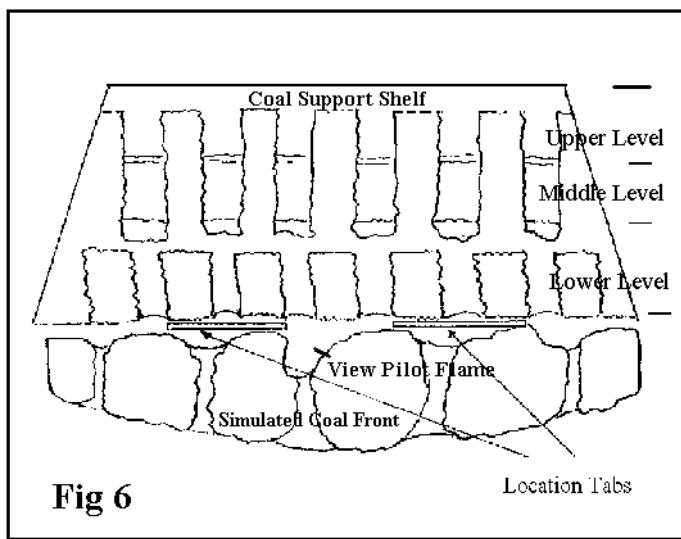


Fig 6

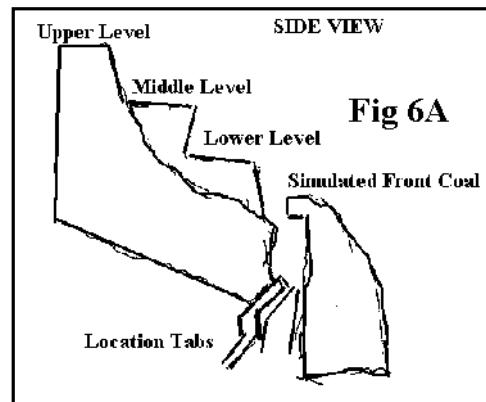


Fig 6A

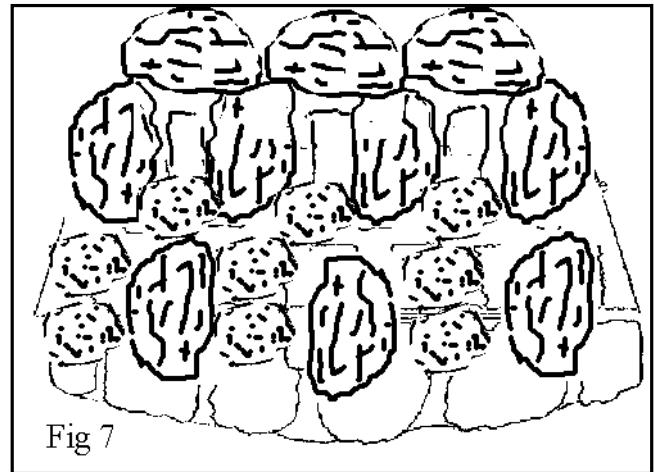


Fig 7

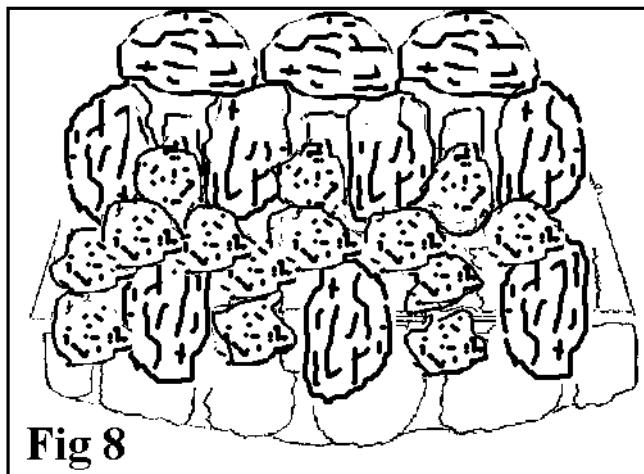


Fig 8

Fig 9

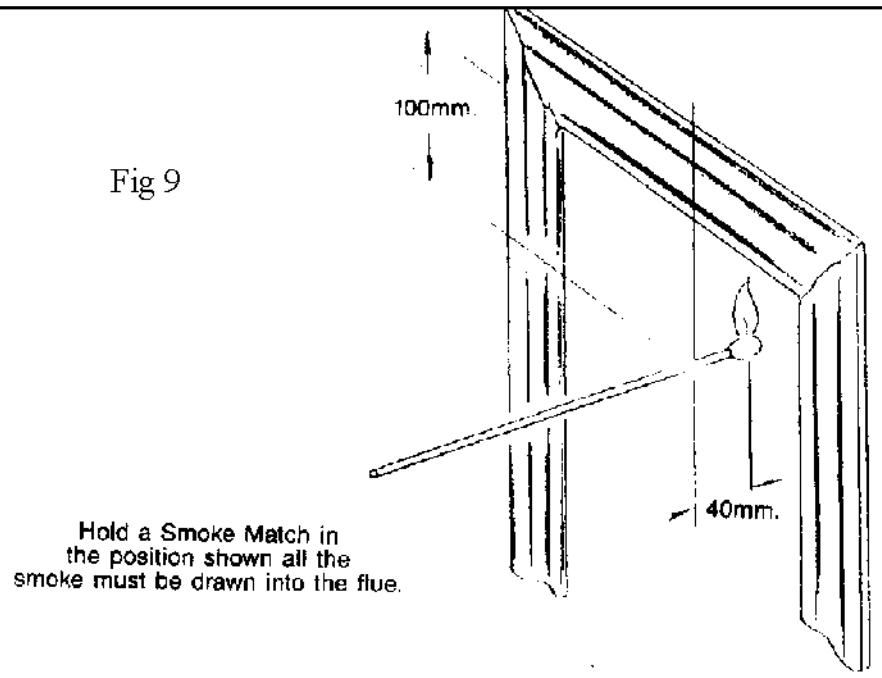
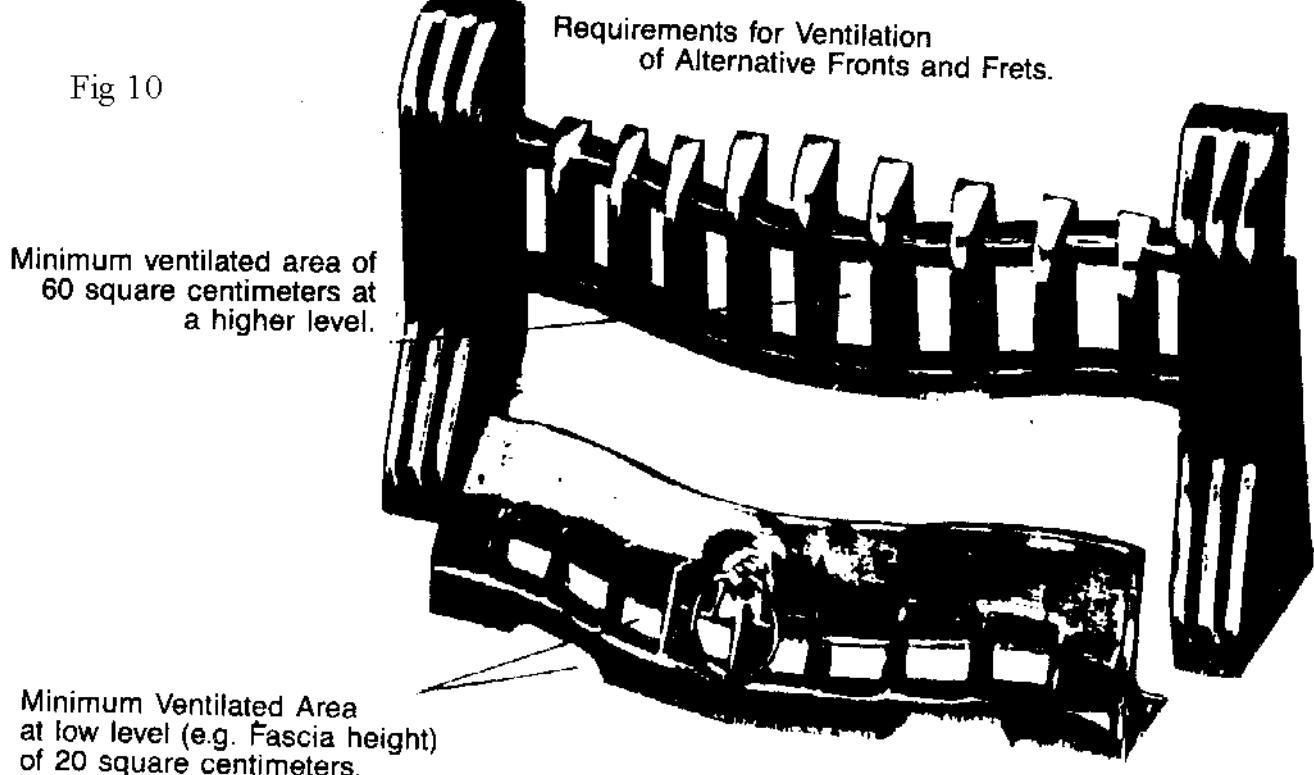


Fig 10



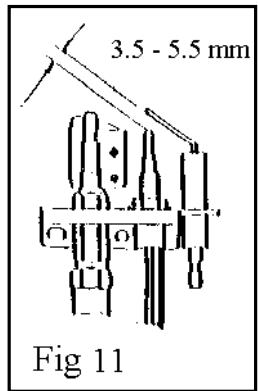


Fig 11

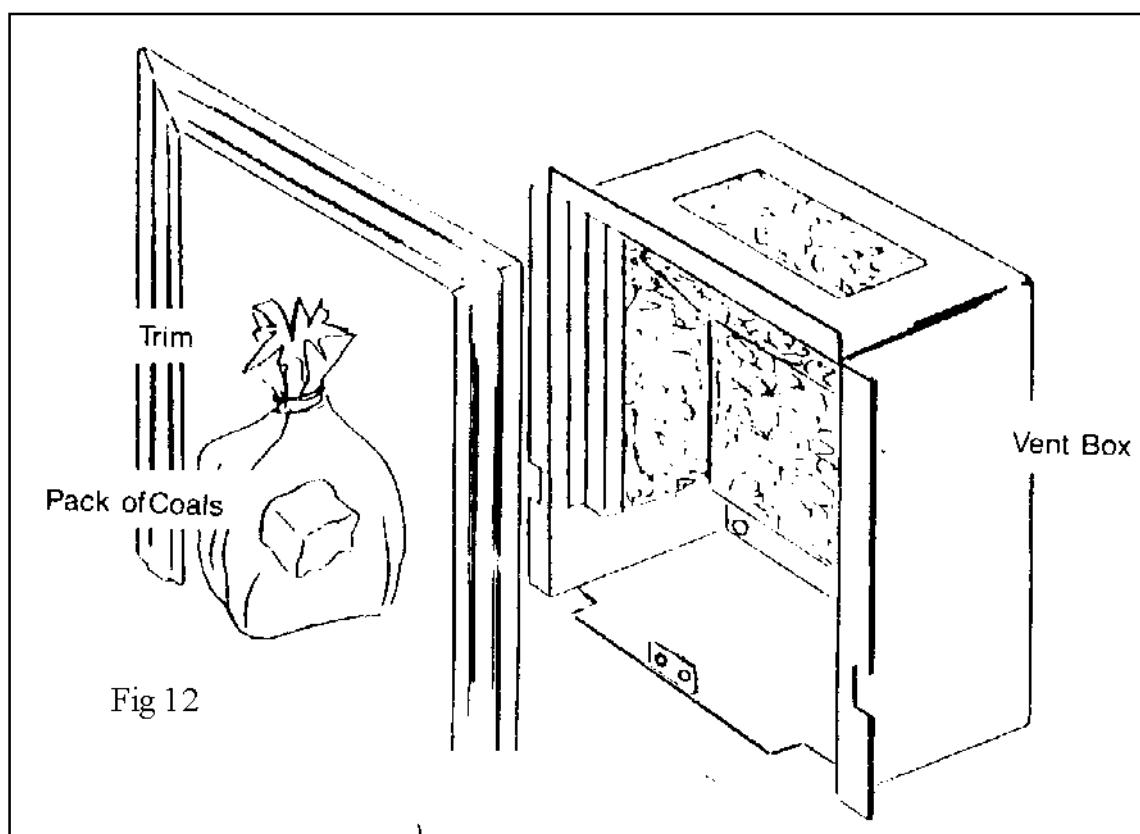
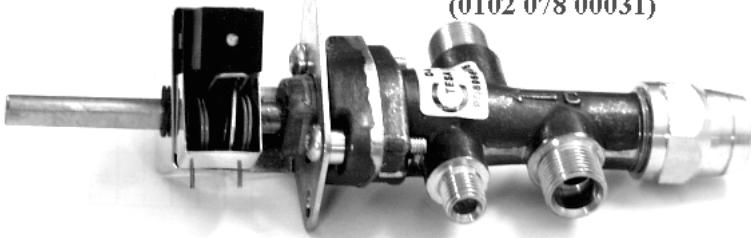
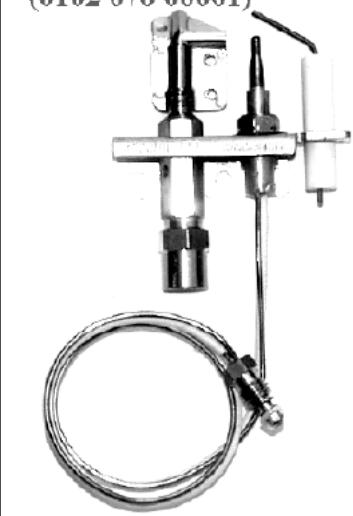


Fig 12

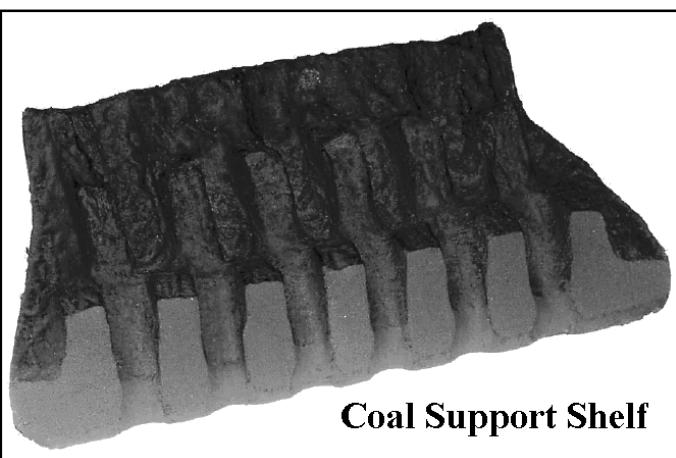
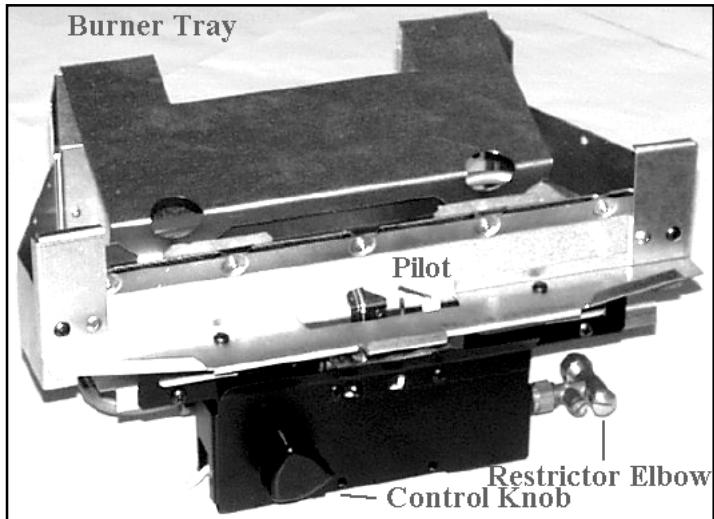
Concentric Gas Valve TESA 3058S
(0102 078 00031)



Pilot - SITGAS OP9022NG
(0102 078 00061)

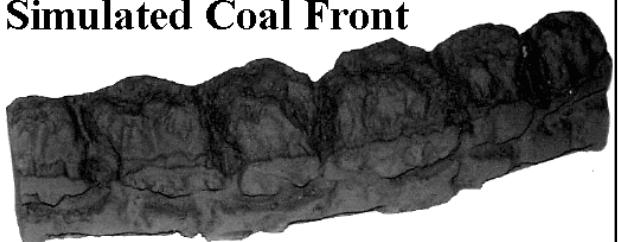


Burner Tray

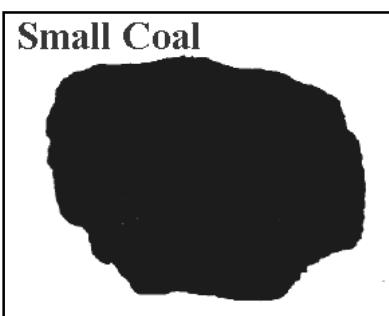


Coal Support Shelf

Simulated Coal Front



Small Coal



Large Coal

